

downstream of a desired gene or ORF and upstream of a virus coat protein gene, wherein the IRES sequence is in the sense or antisense orientation.

19. A viral vector construct according to claim 15 further comprising a stable stem loop structure inserted 5' of the IRES sequence.

23. A viral vector construct according to claim 15 further comprising a stable stem loop structure inserted 3' of the IRES sequence.

26. A viral vector comprising a natural or modified plant virus IRES sequence linked to an ORF encoding a protein of interest, wherein said IRES sequence directs translation of the ORF and wherein the protein of interest is heterologous to the viral vector.

27. A viral vector according to claim 26 wherein said IRES sequence initiates translation effectively in either sense or antisense orientation.

28. A viral vector according to claim 27 wherein said IRES sequence is an IRES<sub>cp</sub> sequence.

30. A recombinant plant viral vector construct comprising a modified IRES sequence that directs higher levels of protein expression.

*Cl 1  
Core*  
  
Please cancel claims 6 and 31 and non-elected claims 32-37 and 39-52.

Please add the following claims:

53. A viral vector construct according to Claim 12, further comprising a reporter gene.

54. A recombinant or isolated polynucleotide comprising: an IRES nucleotide sequence, an ORF encoding a peptide of interest, and an ORF encoding a viral protein, wherein the IRES nucleotide sequence is located between the peptide of interest ORF and the viral protein ORF and wherein the IRES nucleotide sequence is heterologous to the viral protein ORF.

55. The polynucleotide of claim 54, wherein one or more of the IRES nucleotide sequence or the viral protein ORF comprises a tobamovirus nucleotide sequence.

56. The polynucleotide of claim 55, wherein the tobamovirus comprises crTMV.